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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,613	08/09/2001	Attila Szepesvary	54948-315939	2976

23342 7590 02/25/2008

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EXAMINER	
RUTTEN, JAMES D	
ART UNIT	PAPER NUMBER
2192	
MAIL DATE	DELIVERY MODE
02/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/925,613	SZEPESVARY ET AL.	
	Examiner	Art Unit	
	J. Derek Rutten	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,8-13,16-21 and 23-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,8-13,16-21 and 23-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to Applicant's submission filed 12/6/07, responding to the 6/6/07 Office action which detailed the rejection of claims 1-3, 5, 8-13, 16-21, and 23-27. Claims 1, 8, 17, 19-21, 23-25, and 27 have been amended. Claims 1-3, 5, 8-13, 16-21, and 23-27 remain pending in the application and have been fully considered by the examiner.

Response to Arguments/Amendments

2. The amendment of claims 8, 19-21, 23-25, and 27 has obviated the rejection of those claims under 35 U.S.C. §§ 101 and 112. Therefore, the rejections are withdrawn.

3. Applicant's arguments filed 12/6/07 have been fully considered but they are not persuasive.

On pages 8 and 9 filed 12/6/07, Applicants essentially argue that the prior art of record do not teach the elements of claim 1 related to scanning and parsing. Applicants appear to support this argument by responding to observations made in the previous Office action dated 6/6/07.

In particular, Applicants argue that the Jennings reference has yet to construct the user interface for an application when parsing occurs. Presumably, Applicants are arguing that UI objects cannot be identified if they have yet to be constructed. However, this does not seem to agree with Jennings' description in column 2 lines 12-21 and 30-40. These passages describe a set of description documents which define the user interface of an application. These documents are parsed as described in previously cited column 8 lines 53-58. Thus, the user interface is present prior to parsing, in contrast to Applicants' argument. Therefore, this argument is not persuasive.

Applicants further argue that Jennings' "interactor" "does not parse a document into XML elements as stated in the *Office Action*." However, the suggestion that Jennings interactor "parses a document into XML elements" comes directly from Jennings which recites:

> **The received documents** 122 and 124, expressed in XML interspersed with JavaScript code, **are parsed by an XML parser 306 into XML elements (tokens)** and JavaScript code, and these elements are reflected by a reflection process 305 into object model 310. [emphasis added]

Further review of Jennings Figure 3 shows that the XML parser 306 is an element of the "interactor." Thus, Applicants' argument is not persuasive.

Further arguments presented on page 10 of the response are based upon previous arguments as addressed above, and are likewise not persuasive.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 5, 8-13, 16-21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,717,593 to Jennings (hereinafter "Jennings"), in view of "Compilers: Principles, Techniques, and Tools" by Aho et al. (hereinafter "Aho").

In regard to claim 1, Jennings teaches that the interactor parses the description documents of an interface into elements and reflects them in the object model to form an

instance representing the interface, downloads the objects corresponding to the reflected elements registers their interfaces in the object model instance to make them accessible by the elements, and invokes execution of each downloaded object with the corresponding element to render the element. (E.g. see Abstract and associated text). Jennings discloses the method covering the steps of a method for identifying user interface (UI) objects in a markup-language stream, the method comprising the steps of:

receiving a predefined grammar for a particular application; See column 8 lines 53-58 for a discussion of an XML parser which parses a document into XML elements. Note that a predefined grammar is inherent in such parsing, otherwise the parser would not know be able to recognize an XML element. Jennings also implies grammars for particular applications. See column 2 lines 53-57.

...a parser computer program based on the predefined grammar... E.g. see FIG. 7 step 401 and associated text, e.g. col. 7:35-65.

scanning (i) the markup-language stream or (ii) a corresponding document object model (DOM) with the parser computer program to generate tokens; E.g. see FIG. 16 and associated text, e.g. see col. 7:35-52.

parsing the tokens with the parser computer program to identify at least one UI object in a portion of the particular application e.g. see col. 7:42-44, also see col. 7:57-60, e.g. "renders the object." Noted that if the UI object was not identified, it could not be rendered and displayed.

and outputting the portion of the particular application. See col. 7 line 44, e.g. "reflects each token into the DOM."

Jennings des not expressly disclose *automatically generating* a parser computer program based on the predefined grammar using an automated parser generator tool. However, in an analogous environment, Aho teaches the well known method of using a parser generator tool to automatically generate a parser based on a predefined grammar. See Section 4.9, especially Fig. 4.55:

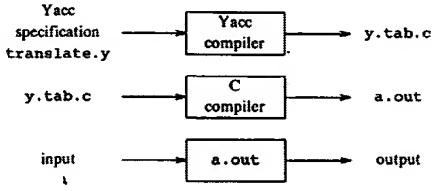

Fig. 4.55. Creating an input/output translator with Yacc.

Note that the grammar is represented as the "Yacc specification" and the parser is represented as "a.out". It is also noted that Applicant's originally filed specification also describes this "well known parser generator" in paragraph 2 on page 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Aho's teaching of a parser generator with Jennings parser. One of ordinary skill would have been motivated to use a well known tool to facilitate the construction of a parser in order to determine if source code is syntactically well formed (See Aho page 159, bullet two, and the 1st paragraph in section 4.9 on page 257).

As per claim 2, the rejection of claim 1 is incorporated and further Jennings teaches:

"wherein said markup-language stream drives a markup-language-based browser application, and wherein the scanning step includes scanning the DOM generated by a browser that displays that application." (E.g. see col. 7:35-52).

As per claim 3, the rejection of claim 1 is incorporated and further Jennings teaches: "wherein the scanning step includes identifying elements of the DOM by traversal thereof." (E.g. see FIG. 16 and associated text, e.g. see col. 7:53-57).

As per claim 5, the rejection of claim 3 is incorporated and further Jennings teaches: "wherein the scanning step includes generating one or more tokens for each scanned DOM element." (E.g. see col. 7: 7:42-45).

As per claim 8, the rejection of claim 1 is incorporated. Jennings further teaches: "wherein said UI objects comprises one of a user input field (E.g. see col. 7:31-32, text entry and see FIG. 15, block "Password" and associated text), text field (E.g. see col. 7:31-32, text entry and see FIG. 15, block "Text" and associated text), metatag (E.g. see FIG. 4 and associated text, e.g. see col. 5:47-50, and col. 7:45-50), unprintable markup-language (E.g. see FIG. 15, block "Hidden" and associated text), or an in-line image (E.g. col. 7:35-40 and see FIG. 15, block "Image" and associated text)."

As per claim 9, the rejection of claim 1 is incorporated and further Jennings teaches: "wherein the scanning and parsing steps are adapted to identify UI objects that correspond to elements displayed in the markup-language application." (E.g. see FIG. 16 and associated text, e.g. see col. 7:35-52).

As per claim 10, the rejection of claim 1 is incorporated and further Jennings teaches: "grouping the tokens into syntactic structures that identify items displayed by the particular application." (E.g. see col. 7:20-25).

As per claim 11, the rejection of claim 10 is incorporated and further Jennings teaches: "wherein said step of grouping comprises identifying similarly formatted markup-language elements based on their markup-language attributes such as classname, font size, style, tag color, and size." (E.g. see col. 5:17-29, style sheet).

As per claim 12, the rejection of claim 1 is incorporated and further Jennings teaches: "wherein said at least one object comprises a name (E.g. see col. 6:1-3), content (E.g. see col. 6:1-3, value), a shape (E.g. see col. 5:64), or a location (E.g. see col. 6:3-5)."

In regard to claim 13, the above rejection of claim 1 is incorporated. All further limitations have been addressed in the above rejection of claim 1.

In regard to claim 16, the above rejection of claim 1 is incorporated. Jennings does not expressly disclose a LALR(1) parser. However, Aho teaches that Yacc is a LALR parser. See paragraph 1 in section 4.9 on page 257.

In regard to claim 17, the above rejection of claim 1 is incorporated. Jennings does not expressly disclose a LR(1) parser. However, Aho teaches that Yacc is a LR parser. See paragraph 1 on page 216.

As per claim 18, the rejection of claim 1 is incorporated and further Jennings teaches: "wherein the markup language is any of HTML, …." (E.g. see col. 7:16-20).

As per Claim 19, Jennings discloses a digital data processing system. See Figure 2. All further limitations have been addressed in the above rejection of claim 1.

As per claim 20, the rejection of claim 19 is incorporated and further Jennings teaches: "wherein the list of UI objects corresponds to elements displayed by the markup-language DOM." (E.g. see FIG. 16 and associated text, e.g. see col. 7:53-65).

As per claim 21, the rejection of claim 20 is incorporated and is rejected for the same reason set forth in connection with the rejection of claim 12.

As per claim 23, the rejection of claim 19 is incorporated and further Jennings teaches: "wherein said tokens are interpreted according to the predefined grammar to identify and distinguish among UI objects of a markup-language application's display." (E.g. see FIG. 16 and associated text, e.g. see col. 7:35-65).

As per claim 24, the rejection of claim 19 is incorporated and is rejected for the same reason set forth in connection with the rejection of claim 8.

As per claim 25, the rejection of claim 19 is incorporated and is rejected for the same reason set forth in connection with the rejection of claim 18.

6. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings and Aho as applied to claims 1 and 19 above, and further in view of U.S. Patent 5,933,140 to Strahorn et al. (hereinafter "Strahorn").

In regard to claim 26, the above rejection of claim 1 is incorporated. The cited art of claim 1 does not expressly disclose: *providing context based help based at least in part on the portion of the particular application*. However, Strahorn teaches context-based help based upon a particular portion of the application. See Fig. 3 and column 3 lines 12-14.and column 4 lines 38-42. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Strahorn's context based help with Jennings'

parser in order to overcome the limitations of conventional help facilities in a web page as suggested by Strahorn (see column 1 lines 50-53).

In regard to claim 27, the above rejection of claim 19 is incorporated. The cited art of claim 19 does not expressly disclose the features of claim 27. However, all further limitations have been addressed in the above rejection of claim 26, and would be obvious for the same reasons.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/jdr/

/Tuan Q. Dam/

Supervisory Patent Examiner, Art Unit 2192